

N^o 7446



A.D. 1895

Date of Application, 11th Apr., 1895—Accepted, 1st June, 1895

COMPLETE SPECIFICATION.

Improvements in Overhead Recuperative or Regenerative
Gas Lamps.

I, CHARLES ARTHUR ALLISON, of 52 Chancery Lane, London, Chartered Patent Agent, do hereby declare the nature of this invention (which has been communicated to me from abroad by Messrs. Charles Assi and Louis Genès, of 6 Rue du Havre, Paris, France, Patent Agents) and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to that class of overhead lamps in which a central burner is employed and in which heated air is supplied to the under and also the upper side of the flame of such burner, such invention being especially applicable to railway carriage lamps.

The essential feature of the present invention consists in the employment of a conical chamber or tube tapering from the top downwards and through which the central gas pipe passes, such chamber being open at the bottom and below it the burner is arranged, while it is closed at the top, but near the top is provided with one or more radial passages or openings communicating with a chamber or passage to which air from the outside of the lamp case is admitted, the products of combustion from the flame preferably passing up the chimney through a space left between the conical chamber or tube and the outer chamber or passage last referred to.

In the accompanying drawings

Fig. 1 is a vertical section showing a suitable method of applying the invention to existing railway carriage lamp casings by inserting the lamp from above into the ordinary casing carrying the glass, and

Fig. 2 a plan view of same.

Fig. 3 is a vertical section showing the application of the invention to a new lamp, such arrangement comprising also a slight modification of the air passages.

Referring to Figs. 1 and 2, A is the gas pipe which passes down the centre of the lamp and terminates in the burner B. Surrounding the vertical part of such pipe is a conical chamber or tube C, tapering from the top downwards, the bottom of same being open and below which the burner B is situated. The top of the chamber C is closed as shown, while near such top one or more (preferably three) radial openings or passages D are provided and communicate with an air chamber E of annular form, the outer wall of which is provided with perforations *e*. Air enters the outer casing F of the lamp at F¹, and passes into annular chamber E through the perforations *e*, thence through the radial passages or openings D into the conical chamber C and down to the top of the flame of the burner B. A portion of the air also passes down outside the chamber E through perforations in a plate G, which supports such chamber, and so to the underside of the flame. The products of combustion pass up to the chimney H through the space I between conical chamber C and air chamber E.

The top of the lamp is preferably hinged so that it can be turned back to ignite the lamp, while for cleaning the lamp glass K, the heating chamber and reflector can be removed from above, by turning same back on the hinge joint A¹ of the gas pipe A.

In the arrangement shown in Fig. 3 the lamp glass K is hinged at K¹, so that

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same can be opened from inside the carriage for cleaning and also for lighting if desired, or the top of the lamp F may be hinged for the purpose of ignition.

In this arrangement further the air chamber E is replaced by a set of rings or baffles E¹, E², E³ arranged to form a sinuous passage for the air current to pass through on its way to the conical tube C to supply the necessary heated air to the inner side of the flame, a part of such air also passing from inside ring E² through openings in plate G to the underside of the flame. 5

Having now particularly described and ascertained the nature of the said invention, and in what manner the same is to be performed, I declare that what I claim is:— 10

In a recuperative or regenerative lamp.

1. The combination with a central gas pipe terminating in a burner at the bottom, of a conical chamber or tube tapering from the top downwards and provided with a radial opening or radial openings at or near the top communicating with an air chamber or passage to which air from the outside of the lamp casing is admitted, all substantially as specified. 15

2. The combination with a central gas pipe terminating in a burner at the bottom, of a conical chamber or tube tapering from the top downwards and provided with a radial opening or radial openings at or near the top communicating with an air passage formed by a series of rings or baffles to which air from the outside of the lamp casing is admitted. 20

Dated this 8th day of April 1895.

ALLISON BROS.,
Agents for the Applicant.

London: Printed for Her Majesty's Stationery Office, by Darling & Son, Ltd.—1895



[This drawing is a reproduction of the original on a reduced scale.]

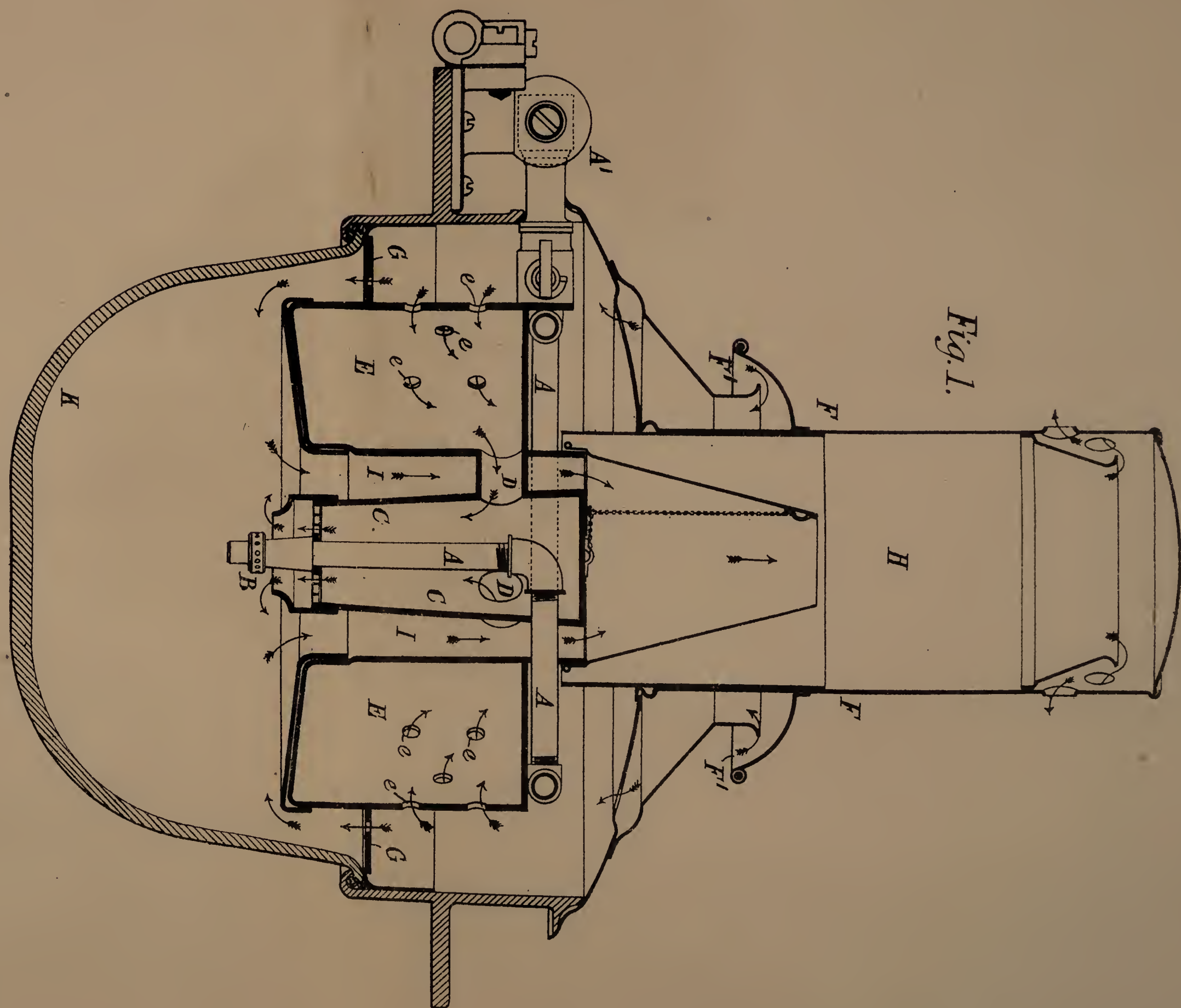


Fig. 1.

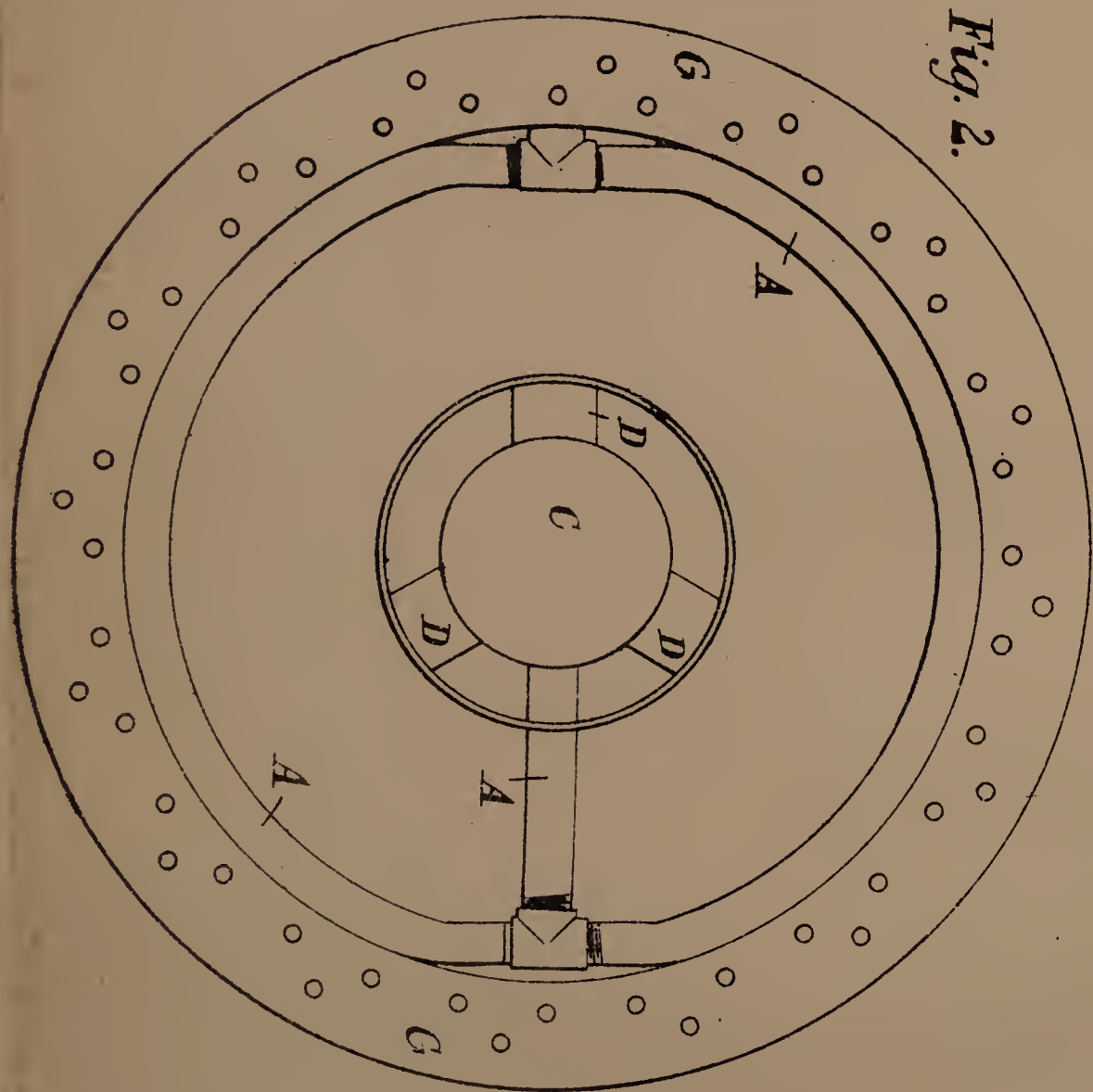


Fig. 2.

